Using Australian Charolais Selection Indexes

Selection indexes assist beef producers to make selection decisions that take into account the relevant growth, carcase, fertility and efficiency attributes of each animal to identify candidates whose progeny will be the most profitable for a particular commercial enterprise. Selection indexes provide an overall indication of an animal's genetic value for profit in a specific production system/target market and are calculated based on weightings placed on individual traits that are deemed to be important for that production system.

The weightings are calculated using BreedObject software that analyses all sources of costs and income for the production system represented by each selection index. As such, selection indexes account for both sides of the profit equation and reflect the short and long term profit possible through selection of superior genetics. For example, short term profit can be generated by a bull through the sale of his progeny, and the longer term profit generated by his daughters in a self-replacing cow herd.

Best Practice Guide to Animal Selection Using Australian Charolais Selection Indexes

Incorporating selection index information into breeding decisions takes the hard work out of trying to decide how much emphasis you need to put on individual EBVs when determining which animals you want to retain in your herd or purchase. The recommended strategy for selecting animals is to complete the following steps:

1. Identify the selection index of most relevance to your or your client's breeding objectives. This decision should be aided by the index descriptions at the end of this document.

2. Rank animals on the chosen selection index. This can be done via the web search facility available for the breed.

3. Consider the individual BREEDPLAN EBVs of importance. All breed level selection indexes are designed for the average of the production system specified in their description. This means that individual farm environments and management choices may require that their own thresholds are applied. For example, if looking for a bull to use over heifers, particular attention should be paid to Calving Ease and Birth Weight EBVs.

4. Consider other traits of importance. Structure, fertility (e.g. BULLCHECK^{TM}), temperament, genetic conditions and pedigree are all important additional considerations.

Further information is available in the A BREEDPLAN Guide to Animal Selection tip sheet that can be found in the Help Centre on the BREEDPLAN website.

Available Australian Charolais Selection Indexes

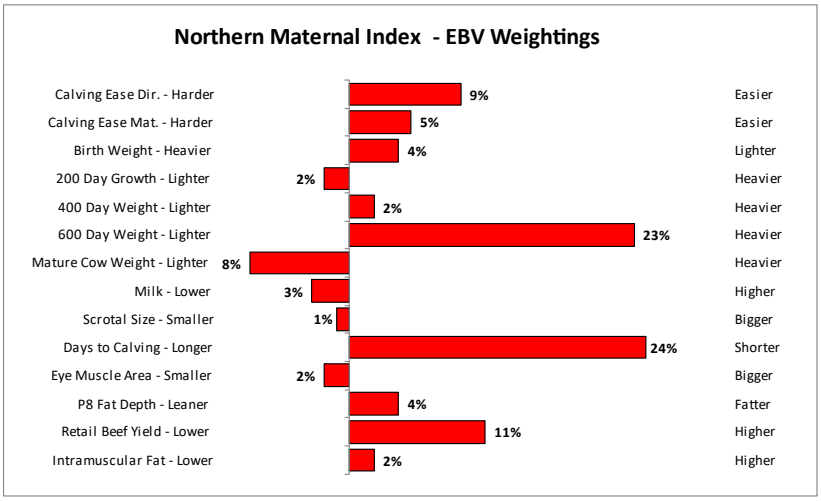
The Charolais Society of Australia currently reports two different selection indexes. These are the:

- Northern Maternal Index (NMI)
- Domestic Terminal Index (DTI)

Each selection index is reported in units of net profitability per cow mated ($), and relates to a commercial herd using Charolais bulls targeting the following specifications:

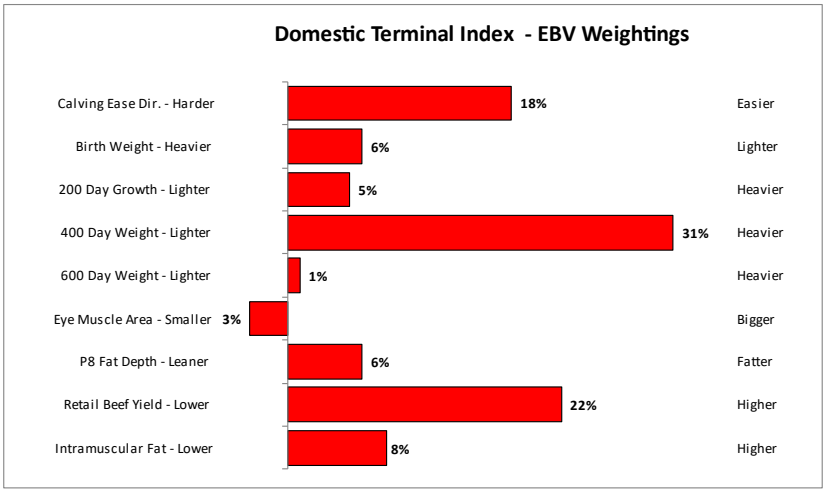
Northern Maternal Index (NMI)

- Crossbred herd in Northern Australia.
- Selected heifers are retained for breeding so maternal traits are important.
- In response to industry feedback, positive emphasis has been placed on finishing ability.
- Steers target 650 kg live weight (360 kg HSCW & 12 mm P8 fat depth) at 26 months of age.



Domestic Terminal Index (DTI)

- Commercial herd using Charolais bulls as terminal sires to target the domestic trade.
- All progeny are finished on grain and target sale at 12 months of age.
- Steers target 450 kg live weight (250 kg HSCW & 7 mm P8 fat depth), while heifers target 430 kg live weight (230 kg HSCW & 9 mm P8 fat depth).



More detail on the trait and EBV emphasis for each of the selection indexes described above is available in the Australian Charolais Selection Indexes: Technical Specifications tip sheet that can be found in the Help Centre on the BREEDPLAN website.

If you have any further queries regarding the Australian Charolais Selection Indexes, please do not hesitate to contact staff at your BREEDPLAN processing centre.